

General Aviation Strategic Network Recommendations

by

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Foreword

1. It gives me great pleasure to present the GA Champion Report, initiated by the Department for Transport (DfT), in order to address concerns within General Aviation (GA) regarding the current and future status of airfields within the UK and with particular emphasis on planning.
2. I was delighted to be asked by the Secretary of State in December of 2017 to take on the role of GA Champion, and in particular, to look at the feasibility of identifying a strategic network of GA airfields with a view to ensuring a healthy and sustainable future airfield policy for all operators of GA aircraft.
3. In recent years, government has taken increasing note of the GA community's concerns, acknowledging the rising tide of anxiety being articulated in connection with the future of UK airfields. The drive to alert government has been aided by aviation minded parliamentarians raising awareness at Westminster of the threats to private airfields from development, both for housing and commercial purposes.
4. My report shows that many of the successful and sustainable GA airfields, such as Biggin Hill, are those that have a strong business philosophy. Research for this report commissioned from York Aviation and published alongside it, quantifies the significant contribution that GA business aviation makes to the economy of the UK. As a consequence, it can have a strong influencing voice in the development of all areas of aviation policy. Business Aviation accounts for £1.7 billion towards the UK economy based on 2018 figures and in 2017 there was a total of over 98,000 business aviation departures in the UK. (Source: EBAA March 2018). My intention has been to reflect this important contribution and also to represent a wider range of GA voices in order to present the full picture.
5. There has been much interest in the work of the GA Champion, as also with the research conducted by York Aviation. I received a number of requests for intervention in individual planning cases. Such action has been outside the scope of the GA Champion's role. However, my visits to various airfields set out in Annex 3 and the time taken by those using and running airfields affected by potential development to talk to me has contributed greatly to my understanding of the issues affecting GA today.
6. I would like to thank all of those committed to a sustainable future for GA who took the time to write, to call and meet me. I would also like to acknowledge the time and efforts of York Aviation, the GA Unit at the Civil Aviation Authority (CAA), and the Ministers and civil servants of the Department for Transport and other government departments to making this report possible.

BYRON DAVIES

Introduction

7. General Aviation (GA) is a vibrant sector that refers to private or commercial aviation that is neither military aviation nor scheduled commercial air transport. It is a diverse sector, as shown in Figure 1, including business jets, model aircraft, aerial work such as aerial photography, flight training and leisure activities such as recreational light aircraft flying, gliding, microlights, parachuting and hot air balloons.



Figure 1

8. There are some 20,000 civilian aircraft registered with the CAA in the U.K., of which approximately 1,000 are operated by airlines. The vast majority, around 95% are engaged in General Aviation activity. Government data, indicate that the sector is responsible for contributing some £3 billion to the overall worth of aviation in the UK, and is responsible for employing 38,000 people, either directly or indirectly¹. This reveals a flourishing sector of aviation in the UK that encompasses business, training, personal transport, leisure activity and engineering.
9. The GA sector has many positive aspects to it. On the one hand it provides a much-followed recreational activity, both for the pilot and aviation enthusiast, whilst at the same time enabling pilots to be trained and develop their skills to become future flight deck crew, air traffic controllers and aircraft engineers. At the other end of the scale the business sector enables the corporate world to operate efficiently and

¹ General Aviation Strategy March 2015, Department for Transport

contribute to the overall success of the UK economy. More importantly, GA is an energetic part of the UK transport system.

10. In the 2015 GA Strategy, the government is clear about the importance of GA. My report builds on this and has a clear objective, which is to explore how to preserve the benefits of General Aviation into the future and where appropriate, for its airfields to receive appropriate levels of protection through the planning process.
11. The objective of the recent work programme I led, was started in late 2017 and was three-fold;
 - (i) to refresh the current Government understanding of the economic benefits being generated by the sector.
 - (ii) to understand where and how they are generated and finally
 - (iii) to understand what a strategic network of airfields would include that would ensure their continued delivery into the future.
12. Accordingly, with the identification of criterion to ascertain airfields of a strategic importance across the UK, it will provide the evidence necessary to underpin the long-term delivery of the sector's economic benefits by providing proportionate protection for those airfields being part of that key network delivering capability.
13. In addition to the above it has been necessary to also investigate and understand, the impact on the GA community of a number of other issues such as safeguarding from specified forms of development, implications of taxation on training and fuel, skills shortages, thefts of aero-engines and the importance of heritage sites across the UK and historic aircraft.
14. Each of the following chapters will examine one of the areas covered in the research programme, such as setting out why a network is a good idea, and how the York Aviation research has informed subsequent work and contributed to the qualitative analysis. The provision of a sense of how the proposed network could work and the database maintained.
15. This report also provides a summary of other GA issues that were either identified or raised with me during the previous 12 months such as use of airspace and training. Finally, it also sets out conclusions, recommendations and next steps.

The GA sector

16. The GA sector has the potential to make a larger contribution to the UK economy. However, the operating environment for GA in terms of its infrastructure must be fit for purpose for it to grow. The consensus within the sector is that, we need to retain and invest in our airfield infrastructure and in addition, we need to examine our taxation regime in respect of all aspects of training and develop an airspace that is fit for the future. There is strong opinion within the sector that advocates government and associated agencies doing more to make a positive contribution to the overall future of GA.
17. Establishing a strategic network for GA is particularly challenging, given the diversity of the sector. For example, the requirements of the gliding community will contrast greatly to those of an air-taxi operation. Similarly, the requirements of the microlight community will differ immensely from the needs of a busy GA airfield operating a full-scale helicopter training operation and so on. The operating needs of GA are many and varied.

Background to the GA Champion report

18. In March 2013 the government published its Aviation Policy Framework. The framework recognised the importance of GA particularly noting the sector's vital role in the area of training. Following on from this, in November 2013 and as part of its strategy to promote economic growth, the Conservative led Coalition Government, published the Government Response to the GA Red Tape Challenge. This report recognised GA as being a crucial part of the UK's aviation sector.
19. The 2015 GA Strategy that followed remains government policy. It was the only one in the world, and contained clear Government targets. These may well need to be updated in the light of what has been achieved, and of changes to government policy and set in the wider context of the new Aviation Strategy. This provides a clear opportunity to consider in more detail airfields used by GA, and the Secretary of State appointed a GA Champion to help inform and enable this.

The need for a network

20. In order to facilitate research for the strategy, York Aviation was engaged by DfT in January 2018 to examine in conjunction with the GA Champion, information such as the existing numbers and capability of UK airfields. The York report outlines the reasons why airfields are increasingly coming under pressure for development. Airfields can be lost to development without consideration for the needs of the local aviation community and local businesses and the airfields potential wider connectivity benefits. It seems therefore logical, to establish a means by which the facilities offered by an airfield are properly defined and can be related to the overall requirements of GA.

21. Ensuring the long-term viability of airfields, is a challenge to owners and operators. Airfield survival depends on many factors. Financial viability is often the biggest impediment but the long-term sustainability of an airfield can also be challenged by the decisions of local planning authorities. This can often be manifested through complaints about noise, planning consent for new builds on the approach / vicinity to an airfield or the restrictions imposed locally for development on the peripheries of an airfield.
22. In considering a network of strategically important airfields, its contribution to business aviation is key, particularly from an economic standpoint. Of course the non business sectors of GA bring wider benefits to the UK too. The UK is known as proving one of the best business aviation connected countries as shown by the review conducted by the European Business Aviation, Economic Value and Business Benefits Report, dated March 2018. The report estimates that approximately 50% of UK business aviation is concentrated around Greater London and includes airports such as Biggin Hill Aerodrome, TAG Farnborough Airport, London Oxford Airport, London Ashford Airport, Stapleford Aerodrome and Elstree Aerodrome. However, it is recognised that the volumes of passenger traffic are comparatively small to the key international commercial airports in the South East such as Heathrow. Figure 2 below provides facts and statistics demonstrating business aviation's importance to the UK economy.

Key Facts and Figures

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| <ul style="list-style-type: none"> • Economic value of GA is driven mainly by Business Aviation. • Business Aviation accounts for £1.7 billion towards the UK economy based on 2018 figures. • Leisure flying – fixed wing accounts for £156 million and helicopter flying for £48 million. Other flying accounts for an estimated £56 million. • Overall, GA airfields in the UK support around £2.0 billion in economic value. • Since 2015 it is estimated that the economic value of GA flying operations has declined in real terms by around 0.1%. • The network of GA airfields currently available is an important asset for the UK economy. | <ul style="list-style-type: none"> • It is important for the GA community to be allowed access to commercial airports across the UK. • The revised National Planning Policy Framework (NPPF) will provide greater protection to GA airfields and provide a consistent planning approach. • In 2017 there was a total of over 98,000 business aviation departures in the UK. <small>Source: EBAA March 2018</small> • The top airfields in the UK based on the number of business aviation departures were London Luton, TAG Farnborough, Biggin Hill, London Stanstead, London Northolt. <small>Source: EBAA March 2018</small> |
|--|---|

Figure 2

23. The research of York Aviation is a good starting point to understand the concepts and issues in the generation of a strategic network of GA airfields within the UK. The work has clearly demonstrated the importance of understanding the two main categories within GA -

business and leisure aviation. Investigating the issue of GA in detail, it can appear that leisure aviation dominates the appreciation of the GA environment, as it includes a range of different leisure types. The importance of the business aviation market to the UK economy can be missed, but in order to operate they both require airfields.

24. York further reports, that the GA airfield network as it stands now provides excellent coverage of the UK population for most of the GA sub-sectors, with in excess of 95% of the population within 35 miles of a relevant airfield in all but one case. However, there remain around 22 counties in the UK with no airfields. The rural area of Suffolk is an example, whilst Hertfordshire has only one remaining airfield. The effects of this is to deny young people the opportunity to engage with aviation and where people have a desire to learn to fly or work in the industry, they are precluded by travel and cost constraints.
25. If the government really wants to preserve the many benefits of GA and ensure appropriate and proportionate protection for significant parts of the network identified in the work package completed by York Aviation, it will use the strategic network to inform decisions on aviation and planning policy. An important reason for identifying a GA strategic network of airfields in the UK is that it can be utilised in the revised General Aviation Strategy, and that those airfields included in the network could benefit from fundamental changes in the way the sector is considered by planning authorities and planning inspectors.
26. It is important that government, as part of the ongoing work on the aviation strategy continue to explore a range of matters such as human factors and emerging technology, as well as jobs and the environment. Human factors will include skills shortages and barriers to diversity in the aviation sector. These factors, alongside others such as deregulation, have arisen in the course of the work undertaken by me over the last 12 months in discussions and representations.

Consultation and engagement

27. Given that there are many representative voices within the GA community, from model aircraft flying through to corporate business jets, the challenge to engage with all interested parties presented an exciting prospect, particularly given the passion amongst aviators at all levels to protect and promote issues within their respective GA sub-sectors.
28. The 2015 GA Strategy identified some 30 different organisations representing parts of the GA community. At that time the government formalised its engagement with the sector through the General and Business Aviation Strategic Forum involving key representative bodies and the CAA. The GBASF in turn reported to and informed a wider GA Partnership chaired by the CAA.
29. Throughout this engagement, the opinions and concerns expressed by the GA Community revolve around the desire to maintain the status quo

in relation to airfield numbers. To be clear from the outset, there is no intention in this report to identify a list of unfeasible airfields, quite the contrary, its purpose is to identify those airfields with certain attributes, which government could secure with long term protection.

30. I have sought the views of many individuals, groups and organisations in preparing this report. It has unfortunately been impractical to engage personally with everyone who has either e-mailed or messaged in one form or another for a face to face engagement during the course of the work. However, collaboration with the list of stakeholders at Annex 1 has proved invaluable, and whilst space prevent me from setting out every interaction, Annex 2 summarises the focus of some of these meetings. These include the various bodies representing GA sub-sectors as well as representatives of the General Aviation Safety Council and the General Aviation Awareness Council.
31. It has been particularly heartening that stakeholders now feel more positive regarding the future of GA in the UK as a result of the government's commitment to finding a long-term strategy for airfields. But as so many have commented – it now must be seen to be delivered.
32. I have had regular interaction with the General Aviation All Party Parliamentary Group (GA-APPG), who have become the largest parliamentary group with a published membership list. This significant new player was formed in January 2017 and has become a powerful national voice for lobbying government on a range of GA related matters. The APPG has now established working groups on the more significant issues to GA with airfields naturally being one of them. Wherever possible, I have attended these working group meetings both as a contributor and observer. The interaction has been very positive with APPG concerns being fed directly back into ministerial meetings.
33. It has also been very useful to maintain a relationship with the Chief Executive Officer of the Aircraft Operators and owners UK. It has produced some thought- Association provoking ideas of how GA should move forward, whilst at the same time identifying current challenges.
34. In my Foreword I noted visits to a number of airfields, where the opportunity to discuss the short and long-term challenges facing operators took place. I was particularly impressed by the facilities and approach of Blackbushe, Biggin Hill and Elstree, Gloucestershire and recommend that these and others could be considered as case studies in the forthcoming White Paper.
35. In order to facilitate research for the strategy, York Aviation was engaged by DfT in January 2018 to examine in conjunction with the GA Champion, information such as the existing numbers and capability of UK airfields. Thus, providing the evidence to develop a method whereby, a strategic network could be identified. Much therefore, on which this report relies, is a direct result of their finding, which drew on and updated their 2015 research on the value of GA.

36. SkyDemon has an extensive list with up to date information on whether airfields are active or not and lists some 860 in total. Pooley's Flight Guide provides particularly comprehensive details and has been used as the primary source for analysis with regard to the characteristics of airfields.
37. Given that activities within the GA Community are many and varied, how do we establish the individual worth of an airfield, its potential contribution to the network and its contribution to the wider economy? The York Aviation Report summarises in a simplified way the data sets developed, and how they have been linked together to enable development and implementation of the approach in evaluating the network.
38. Two further key considerations are skills and planning.

The skills and employment challenge

39. The UK is highly regarded worldwide for its pilot training. With the projected increase in passenger air traffic expected to double the size of the commercial aviation industry over the next 20 years, this growth has significant implications for the worldwide supply of professional pilots. It is certainly one, which UK training establishments should be equipped and prepared to take advantage of.
40. It is projected that there will be a global requirement for 255,000 new airline pilots over the next 10 years to sustain and grow the commercial air transport industry. Rapid fleet expansion and high pilot retirement rates create a further need to develop 180,000 first officers into new airline captains - more than in any previous decade.
41. These numbers mean that over 50% of the pilots who will fly the world's commercial aircraft in 10 years have not yet started to train. In 2016, approximately 20,000 pilots entered the airline profession around the world and importantly, some 10,500 pilots came from smaller independent training organisations generally located at smaller airports and serving both recreational and commercial pilots. The UK GA sector is well placed to benefit from this opportunity, subject to recognising the urgent need to develop, protect and retain an infrastructure fit for this purpose within the UK.
42. The skills building and employment generating aspects of GA are now well-recognised, alongside some of the associated challenges. The government's 2015 GA Strategy set out a vision that aims to make the UK "the best place in the world for GA as a flourishing, wealth generating and job producing sector of the economy". Indeed, in the foreword to the 2015 GA Strategy document, it identifies quite clearly:

"GA's role in training future pilots and engineers, and employing skilled workers. GA still accounts for nine tenths of our aircraft and over half of

our pilots, it directly supports almost 10,000 jobs and indirectly nearly 30,000 more. These are skilled careers, including aerospace engineers, those involved in advanced avionics and those training the next generation of pilots”.

43. The UK has a proud heritage for design and manufacture in the aviation sector. The numerous aircraft manufacturers that at one time existed, were responsible for training and developing the skills of their employees. With the demise of individual aircraft manufacturing companies, opportunities for those wishing to enter the aircraft design and manufacture sector, are now confined to international aerospace companies. However, opportunities for engineering are certainly still available in the GA sector.
44. The aviation industry is very much a barometer of the economy and in recent years has seen a decline in operations at GA level. (Since 2015 it is estimated that the economic value of GA flying operations has declined in real terms by around 0.1%). Nonetheless, the GA fleet will always require maintenance and there is some evidence of growth in aviation colleges. Perth and Harlow Colleges are two of a number of facilities that impressed me and I recommend that they could be included as a case study in the forthcoming White Paper.
45. All this bodes well for the future of the industry. Nevertheless, there is some disquiet within the GA community and a feeling that government could do a great deal more to support younger people contemplating an aviation future. The impression amongst the GA community is that there appears to be a lack of cohesion between government departments responsible for promoting and supporting young people entering aviation employment in general. It has also been suggested that government, perhaps through the DfT, could provide bursaries for aviation related careers, which would go some way to alleviate the consequences of taxation on training on the airfields in the network.

The planning challenge

46. A key catalyst for this report has been the concern amongst aviators within the GA sector - be they model flyers, microlight operators, glider pilots or fixed wing / rotary operators – that the survival of suitable airfields to service the many and varied aspects of the GA community is currently under threat by developers.
47. There is significant national and local pressure to provide additional housing. The UK government is committed to delivering 300,000 homes a year by the mid-2020s and on 1st October 2018 announced further plans to speed up the planning system as well as make better use of land and vacant buildings to provide the homes that communities need.
48. The government is keen to champion ambitious councils that wish to make new garden communities a central part of their plans for housing

and economic growth. To achieve this, the government has set out a package of reforms to deliver these homes by the mid-2020s through planning reform and targeted investment. As part of this the government has announced plans to consult on further measures to speed up the planning system as well as make better use of land and vacant buildings to deliver the homes that communities need.

49. This ambition presents obvious challenges and risks to airfields. Owners and operators of financially struggling sites will be tempted by the potential gain from the granting of planning permission and the potential value that could be realised from development. From my work it is clear to me that a number of airfields in the south east of England are vulnerable to garden village developments. The General Aviation Awareness Council (GAAC) have published a list of airfields currently under threat.
50. Aerodromes may be particularly vulnerable where they have limited local transport links. By their very nature, airfields are often to be found in remote surroundings with an absence of the necessary road and rail connections to support their sustainability.
51. Whilst the development issue is dealt with in detail in the York Aviation Report, the following extract from that report serves to highlight the threats faced by GA;

“... At present, there is a well-recognised need for additional housing in the country, particularly around major towns and cities. The current undersupply means that the land values associated with housing uses is very high. At the same time, airfield operators in the GA sector in many cases struggle to make a commercially viable return from airfield operations. This means that the returns to owners from the land taken up by airfields is often very low. Unsurprisingly, many landowners are, therefore, seeking to extract greater returns from their land assets by switching uses. It should be recognised that this is an entirely rational action and consistent with the operation of a market economy’

52. In preparing for the future of GA, it is important to be aware of the legacy of Dr. Richard Beeching’s report, The Reshaping of British Railways. The consequences of denuding, not just the GA Community, but society as a whole of potential transport links and business opportunities as a consequence of current housing and planning demands, would be to ignore the transport needs of future generations.
53. The Ministry of Housing, Communities and Local Government has a crucial role to play. In a recent letter to the GA-APPG, Local Government Secretary of State, the Rt Hon James Brokenshire MP, has confirmed his advice to local planning authorities that they should engage with non-statutory consultees (including aerodromes) on developments within the local area. Mr Brokenshire states that National Planning Practice

Guidance sets out that local planning authorities should consider whether there are planning policy reasons to engage other consultees who – whilst not designated in law, are likely to have an interest in the proposed development.

54. The 2015 GA Strategy sought to generate meaningful engagement with GA by all relevant government departments on relevant policies. One of the key aims was to amend planning guidance set out in the National Planning Policy Framework (NPPF) so that it makes appropriate reference to GA aerodromes. This was evidenced in the July 2018 announcement by Ministry of Housing, Communities and Local Government, of the updated NPPF. The document goes some way to addressing GA planning concerns by requiring planners to “recognise the importance of maintaining a national network of GA airfields, and their need to adapt and change over time, considering their economic value in serving business, leisure, training and emergency service needs, and the government’s General Aviation Strategy.”
55. The benefits of this to GA are clear; it provides guidance that should be followed in order to deliver the Government’s commitment to a General Aviation Strategy and the revised NPPF will provide greater protection to GA airfields and provide a consistent planning approach. This is a very welcome move forward and hopefully will continue to provide scope for much needed additional consideration of GA planning concerns within the NPPF.

The work of York Aviation

56. York Consulting, in association with York Aviation, was appointed by DfT in January 2018 to undertake a study regarding the identification and characteristics of a strategic network of GA aerodromes. This research is published alongside my report, as is a set of slides summarising the work.
57. From the outset, York Aviation also placed a high degree of importance on consultation and engagement with the GA community, working in partnership with the GA Champion. The consultation programme has included initial direct consultations with organisations who speak for a range of users within GA, followed up by two workshops to which all the representative organisations were invited. Assessing a large and very diverse segment of the aviation sector is a real challenge and it has been undertaken methodically.
58. In seeking to achieve the strategic network goal, it was considered that the main purpose of the study would be for York Aviation to determine answers to the following research questions:

- summarise and split between private and the various types of commercial users, the main socio-economic benefits to the UK economy and the UK public, from having a strategic network of aerodromes in relation to GA;
 - identify a series of evaluation criteria that could be used to assess the current and future strategic importance of a UK aerodrome in relation to the various types of GA;
 - apply these criteria so as to create a UK wide database from which a network can be generated, and to recommend what the optimal UK strategic network would be and recommend how and by whom the network can be reviewed and kept up to date in line with changes in aerodrome use and capacity in future years.
59. York Aviation identified two key themes for considering effectiveness:
- the accessibility that the network provides both in terms of individuals being able to access facilities that enable them to undertake GA activities, and in terms of providing connectivity for travel between different points in the UK;
 - the capability of the network in terms of airfields' ability to support a particular GA activity.
60. York Aviation's approach has fundamentally relied on what they know about GA airfields and what can reasonably be found out on a consistent basis. A major focus for their work has been gathering data on airfields and GA flying to enable a better understanding of what is available to work with. Stakeholders from the GA community have been invaluable in this process and York **Aviation** has been able to access and consider a wide range of data sources.
61. York Aviation determined that there are two separate issues to be evaluated:
- **assessing the performance of the network as a whole in terms of its ability to provide the UK population with access to the different GA sub-sectors** and hence the benefits GA can bring. They considered this the more pertinent question in terms of understanding from a strategic perspective what the impact of any changes to the network might be.
 - **assessing the value of any individual airfield to the network relating to each GA sub-sector and GA as a whole.** This gives some idea of the potential damage to the network if an airfield becomes inactive relative to other airfields but it does not actually ultimately provide guidance on whether the overall performance of the network is affected'
62. They then undertook, a quantitative assessment of airfields; to examine the suitability of an airfield for any specified GA sub-sector; coupled with facilities that are available at an airfield, this produces an unweighted

score, which is then considered against the local population and number of airfields within a given vicinity. Of crucial value when assessing airfields are the quantitative attributes an airfield, coupled with less easily quantifiable criteria that I have called qualitative. These range from specialised engineering, community engagement, catering facilities through to environmental attributes, and are further considered below. The effect of this work however, is a means of categorising airfields, which now establishes the working basis for a network strategy.

63. A key finding from the York Aviation Report, is the absence of consistent and reliable information to help identify the varying nature of airfields and what they are capable of delivering. In part this demonstrates the difficulty and challenge in protecting such widely distributed assets to date, particularly when the approach has been on an ad hoc basis. The CAA collects data on airfield movements from only a small sub-set of UK airfields, in order to reduce the burden on the aviation sector, who would have to pay for any data collection and analysis. There is no other centralised source of information. Therefore, determining a strategic network in the absence of data on the current state of airfields is a challenging task and has involved considerable ingenuity. In an effort to categorise airfields that are capable of being included in a strategic network, York Aviation has identified two key themes for considering effectiveness;
 - accessibility in terms of travel time and
 - capability in terms of an airfields' ability to support a particular GA activity.
64. The report combines desktop research, expert advice during interviews and workshops analysis. The aim of the report was to quantify the financial benefits of GA to the UK economy and aimed to identify a GA strategic network of airfields in the UK, using a specifically developed methodology.
65. The report identified gaps in the databases held by various organisations within the UK concerning GA that the research team sought to fill. Using the data provided they have completed and provided details on quantitative and qualitative analysis to inform the debate on a GA Strategic Network or Airfields.
66. Also, the research team have provided an updated and more comprehensive assessment of the economic value and benefits of leisure GA and particularly business aviation in the UK.

Analysis of York Aviation report

67. The results of the study undertaken depended, like all studies on the validity of the input data and the assumptions made. However, the guidance provided appears to use a robust methodology based on the available data.

68. The importance of the use of consistent assumptions has been critical in the work undertaken by York Aviation on the quantitative and qualitative analysis.

Quantitative and qualitative criteria

69. When the importance of aerodromes was considered, including the capability, it was essential that a realistic assessment of any trade-offs made was considered concerning the capability of the end users across general aviation.
70. Qualitative criteria were also assessed by York Aviation; the criterion are important because an element of judgement is also required in determining the value of an individual airfield compared with an alternative use. In addition to the quantifiable criteria there are a number of non-quantifiable criteria that can be considered when assessing a specific airfield.
71. The nine criteria that were identified by York Aviation in their report are listed below and were used in the qualitative analysis:
- Viability
 - Hangarage
 - Specialised Engineering
 - Heritage Value
 - Use by the Emergency Services
 - Community Engagement and Education
 - Environmental Factors
 - Surface Access
 - Other non-aviation activity
72. As discussed earlier in the report **financial viability** is a critical issue especially for many smaller GA airfields. In some cases, it has contributed to the pressure on owners to consider alternative uses. However, it was not possible in the subsequent analysis of the qualitative criterion to assess the financial position of each airfield.
73. **Hangarage** was considered, as it is the ability of aircraft owners to store the aircraft in a weather free environment so it can be an important consideration for users in terms of the value, they may ascribe to using a particular airfield. In the analysis completed by York Aviation they became aware of the shortage of hangar capacity at airfields in some parts of the country and that the cost of using hangars can rise in relation to how far from London an airfield is located. It could be suggested that the criterion is quantitative however, the project team advised there was no reliable source of data as to the availability and price of hangarage at GA airfields, without contacting each airfield individually. Given the availability and cost of hangarage is always changing, such research would quickly become out of date. Pooley's does indicate whether hangarage is available for given airfields, but the

data related to whether hangars existed at an airfield without detail on the space availability.

74. **Specialised Engineering** is an important criterion. Basic aircraft maintenance is often available at GA airfields and this is one of the quantifiable criteria that York Aviation used in their quantitative assessment. However, some users will require specialised maintenance, because of a particular type of aircraft or to some particular aspect of the aircraft, such as airframe structure or avionics
75. **Heritage Value** is viewed as an important criterion as there are a number of airfields in the UK that either have some heritage value in their own right, or else provide special facilities for heritage aircraft and their operations and maintenance.
76. **Emergency Service Use** is the extent to which an airfield is used by the emergency services, such as Search and Rescue (SAR), Air Ambulances and Police Helicopters, or the use of an airfield for the purposes for transporting medical supplies or to transfer people to hospital by air in life threatening circumstances, should also be taken into consideration. Following various meetings, it became evident that the geographical spread of aerodromes available to the specialist aircraft is an important criterion, and that they often fly into smaller airfields to uplift fuel during operations. Figure 3 provides more detail on Air Ambulance, NPAs and Search and Rescue operating bases within the UK.

Emergency Responders

Air Ambulance

- HEMS are tasked via the ambulance 999 system as an integrated response to an incident.
- Although they can land at hospital landing sites, in some instances if a hospital doesn't have a bespoke facility available they will land at an airfield nearby for patient transfer.
- Examples of GA airfields that host HEMS include the Air Ambulance for Kent, Surrey and Sussex which has a forward operating base at Rochester Airport and has an aircraft hanger and maintenance facilities at Redhill aerodrome.
- The Air Ambulance for Northern Ireland has a primary operating base at Maze Long Kesh.

National Police Air Service (NPAS)

- NPAS provides borderless air support to the 46 police forces of England and Wales from the network of 15 bases. some are airfields some are not.
- Some forces preferred to have their bases at a Police HQ, others at local airfields.
- An essential criterion for a base is its geographical spread - considering flight times and what airfields might be available in a given area

Search & Rescue (SAR)

- The aeronautical Rescue & Co-ordination Centre (ARCC) is part of the Maritime Coastguard Agency
- The ARCC is responsible for tasking UK Search and Rescue (SAR) helicopters from 10 bases across the UK, as well as counter pollution fixed wing aircraft and can request additional assets, if necessary to aeronautical, inland, coastal and maritime assets.
- There are 10 bases across the UK, including Lee on Solent a General Aviation airfield.

Map showing the locations of the SAR sites in the UK

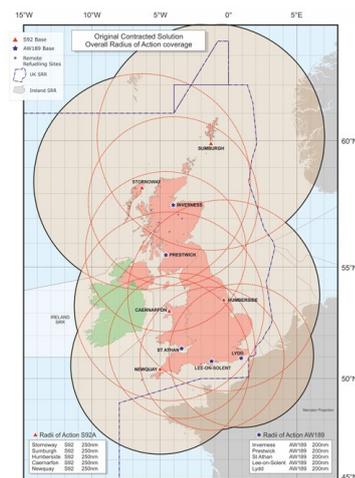


Figure 3

77. **Community Engagement and Education** is a further important criterion as many GA airfields have close ties with their local communities and proactively promote interaction with them. These ties can take numerous forms from simply ‘watching the planes’ on a sunny afternoon from a café or viewing area, to links with local educational and training establishments and hosting of corporate events. Also, the interaction with local schools and educational establishments can be particularly valuable in terms of training provision, work experience and apprenticeships for local students, especially in STEM² related subjects. RAF Air Cadet and Scout units are also sometimes accommodated on airfield sites. Air shows are another significant form of activity and are considered in more detail in paragraphs 103-6 below.
78. There are **environmental factors** because airfields are large open spaces, sometimes in Green Belt areas and so can provide local visual amenity and a number of environmental and wildlife benefits in terms of habitat or greenspace, or sometimes agricultural cultivation of outlying airfield land.
79. **Surface transport access** is also an important factor for airfield survival as it provides connectivity to areas of the country where surface access connections are limited. The extent of surface transport connectivity is an additional consideration which York Aviation were mindful of in their analysis and is being reviewed by the Government. The Department recognises that a reliable transport system to and from airfields is essential to maintain and improve its viability as it provides access to employment opportunities for the local community and improves connectivity for businesses.
80. Many airfields have associated land and property or even business parks which serve non-aviation related businesses, as well as aviation related and supply chain businesses. Property rental Income from such activity is often a critical component of an airfield’s viability. Also, they can be used for non-aviation activities such as motor vehicle testing and driving instruction/tuition, sometimes undertaken by the emergency services.
81. I have distinguished above between the qualitative criteria where there are less robust data available and the quantitative criteria used by York Aviation to rank aerodromes in terms of their significance to a strategic network of GA aerodromes for which there were fairly reliable, recent and reputable data sources. The quantitative criteria are outlined below and all are set out in Annex 3.
82. The quantitative criteria are
- Airfield
- Facilities such as navigational and landing aids
 - Noise abatement limitations

² Science, Technology, Engineering, and Mathematics.

- Whether licensed for CAA purposes e.g. level of fire cover available
- Whether handling operators are available and/or compulsory
- Airframe de-icing facilities
- Type of traffic permitted – IFR/VFR
- Suitable pre-flight briefing facilities e.g. MET/Aeronautical Information Service
- Support services for specific aircraft type operations - ground generators
- Provision of helipad and associated support services

Runway

- Hard surface –asphalt/concrete or soft/grass/gravel surface
- Runway length and landing weight capability
- Airfield lighting for night-time operation
- Suitable taxiways with adequate propeller ground clearance

Air Traffic Control

- Ground only service
- Air Traffic Information Service

Fuel – where available by type

Parking / hangar facilities

- Overnight secure parking
- Availability of hangar space for visiting aircraft / home based aircraft

Maintenance facilities

- Suitably qualified/equipped and licensed workshops
- Suitably licensed engineers

Operational hours

- 24 hrs – 7-day week or daylight hours only. 'Out of hour' operation permitted.
- Availability of HMRC – prior notice required
- Designated airport or Certificate of Agreement with Border Force

83. Most airfields feature one or more of these criteria, which can contribute significantly to the survival of many of our GA airfields. Whilst airfield revenues rely greatly on landing and aircraft parking fees for example, additional income is accrued through the sale of fuel. These items alone however, are seldom enough to guarantee an income sufficient to employ the necessary staff and cover overheads at an average GA airfield. The requirement therefore, to have perhaps additional non-aviation related activity can often make a crucial difference and contribute to long-term survival at an airfield.

Network definition or network contribution?

84. Having identified the criteria, the next issues to consider are the extent to which one strategic network can cover the needs of all types of GA activity, and whether it was more appropriate to define a network or have a methodology that allowed the contribution of a particular airfield to be established.
85. In order to identify and understand the requirements of the various sub-sectors two workshops were held in April 2018 with GA representative organisations.
86. It is clear that from an economic perspective, there will be greater benefits resulting from a strategic network that meets the needs of the business aviation community, than those from recreational flying. The York Aviation report also however, identifies social and health benefits derived by some user groups from GA flying, which are a factor in defining a network that serves the needs of everyone in the wider GA community. The needs of the GA Community are many and varied and the York Aviation report identifies this:

'We therefore agree with the GAAC that there can be no 'single network' of airfields and that the existence of a wide range of different user groups with different needs makes the definition of a network particularly challenging.

87. The York Aviation report also recognises that the network will change over time. Demands made of the network will become more technical, as there is a new dynamism shaped by drone and electric aircraft development. Other factors such as location and accessibility of airfields, sector needs, together with the changes needed to meet future demands, all combine to mean that this will be a constantly developing network.
88. The question of how to identify and grow a network is influenced by a large number of factors. In addressing this, York Aviation has identified characteristics and developed a process for categorising and determining a network, based on quantitative analysis. The real challenge has been to create a viable database from which a strategic workable network can emerge.
89. Much debate has taken place as to whether a comprehensive list of airfields in order of merit, should be drawn up in the Aviation Strategy from this database. This could for example result in the top scoring 20% being identified as worthy of protection, which would perhaps amount to some 110 airfields as a result of employing York Aviation's combined weighted score formula and the qualitative criteria.
90. While such a process would generate a protected list it would also of necessity create a mirrored list of less protected airfields. The effect of

this could be to encourage the consideration of these locations as redevelopment sites which is not the aim of this exercise.

91. A related issue from establishing a database is the challenge of updating it and where the responsibility to maintain it would lie. This report has referred to the datasets of companies such as Pooley and SkyDemon but work contracted out in this way would incur significant financial outlay, and, as this would not of itself generate revenue, it is likely to be borne by the taxpayer. Rather than this option, I conclude that there are two possible contenders; ownership could become the responsibility of either the DfT or CAA.
92. This report has alluded to minimal data held by the CAA on GA operations other than for records on licensed airfields. The same may be said of DfT but given the CAA's regulatory responsibilities it might be better placed to update such data. The costs of processing data by the CAA are generally met by regulated parties. For credibility, a database would need to be updated regularly. In order to assist with this, owner / operators of all airfields qualifying for inclusion on the strategic network, could be required to submit a simple return periodically of any change in their circumstances / infrastructure. This would assist in establishing a true reflection of the state of GA airfields in the UK.
93. The GA database now is the intellectual property of the DfT and utilising the process framed by York Aviation, could be reviewed periodically by DfT officials in conjunction with specialist contractors. It will be a matter for the Government to decide on the future of the database, it would seem natural and fitting for a sector resourced body such as the CAA be entrusted with the duty.
94. This should not prevent an airfield owner or operator from being able to apply for inclusion in (or exclusion from) the network. Indeed, it may be the case that creating this network from the database would motivate owners and operators to improve their airfield's capability in part to warrant a higher ranking in the network. The knock-on effect would, be to perhaps generate a competitive and improved airfield network. Any airfield wishing to be included in the network would be required to provide clear evidence that demonstrates it meets the necessary criteria.

Other issues

95. A range of issues was raised whilst engaged in the role of GA Champion, which were outside the scope of the intended work of the strategic network of airfields. They are detailed below in alphabetical order as valid concerns among the GA community worthy of reporting.

Access to commercial airports including night flight restrictions

96. Much of this report has focussed on the potential designation of airfields as part of a national network of strategic significance to GA. A related issue is the amount of access that the GA community has to specific

airfields, in particular that it is allowed access to commercial airports across the UK as this benefits the connectivity of the network as a whole. I have received a number of indications that there is a distinct move by some more GA business inclined airports to deter smaller private aircraft from visiting their airfields. This can be brought about by disproportionate landing charges or more severely, high compulsory handling charges. While access to airports must be a matter for airport owners, there is a case that the adverse impact of these changes, should be regulated in some way.

97. Particular concern has arisen over restrictions on overnight flights and its effect on the business aviation community. These night flying restrictions have been put in place by local authorities on airports and particularly affects the London area. Most of the airports in the south east have imposed a ban, with the exception of Southend and Birmingham who continue with 24/7 operations. The issue has a serious effect on a vibrant revenue earning section of the GA Community and DfT are cognisant of the situation.

Airspace

98. Through the many emails and visits to GA establishments, it became evident, that whilst the demise of airfields is cause for concern, there is growing concern that even when airfields are not at risk, restrictions on the airspace between them may damage their sustainability. GA representatives are not convinced of the robustness of decisions on airspace allocation and feel that there is insufficient GA representation and contribution to the airspace allocation process.
99. Likewise, there is also unease over the lack of action to remove restrictions that are no longer necessary on airspace. GA is however represented on the newly formed Ministerial Airspace Group enabling it to be represented at the highest level.
100. It is also contended that where Class D Airspace exists and no controller available, there should be an automatic right to transit. More reliance should be made of new technology, in particular conspicuity equipment which is now becoming available at affordable prices.

GNSS approaches

101. Serious concern has been expressed that the UK is lagging behind countries such as France, Germany and the USA, when it comes to embracing technology that could improve flight safety. The CAA have accepted that the delayed introduction of GPS approaches had not been their finest hour. This raises serious worries, as these approaches known as GNSS (Global Navigation Satellite System) into smaller aerodromes, will allow for greater accuracy and therefore safety, particularly in adverse weather conditions where visibility may be poor.

102. Patrick Cipriani of the French Civil Aviation Authority (DGAC), announced at the November EASA GA Safety Conference in Vienna, that 80% of instrument runways in France now have GNSS approaches. By contrast in the UK, barely a handful having been established over the last few years. This does raise questions about missed opportunities to provide for the safety of pilots in marginal weather conditions in the UK by the regulators. This is a matter that should be receiving close DfT scrutiny.

Heritage

103. An issue which raises great passion within the GA community currently, is that of heritage aircraft. Britain has played a pivotal role and established itself as one of the key pioneers of early aircraft design and manufacture. Heritage aircraft play an enormous part in enabling people of all ages to gain an appreciation of aircraft development. Flying examples of the surviving aircraft of the bygone days of aircraft production on our shores, remain in both individual ownership and heritage organisations. Other non-airworthy aircraft examples can be seen at static displays and in museums. Only a select few GA airfields will have collectable heritage aircraft based in their hangars. Rather, these aircraft require specialised care and generally speaking will be located at airfields that have appropriate engineering facilities and suitable infrastructure, such as hangars and grass runways.
104. There is strong opinion within the heritage community, that it benefits little from the current regulatory regime and that there would be benefits in a self-regulating approach to safety.
105. It is claimed that the air show circuit is the second biggest spectator sport in the UK next to football (TSA Consulting). The CAA introduced precautionary restrictions relating to civil air display activities in the aftermath of the tragic Shoreham Airshow incident. These included restrictions that applied to swept and straight wing ex-military jet aircraft prohibiting aerobatic displays over land, and limiting these aircraft to carrying out flypasts and manoeuvring turns only. Following publication of the Air Accident Investigation Board's final Shoreham accident report, enhancements made to air show safety and a review by the CAA of the different flying characteristics of these types of aircraft, the CAA decided to remove the precautionary restriction that previously applied to straight wing ex-military jets. However, the restrictions continue to apply to swept wing ex-military jets.
106. These restrictions have provoked serious concern for operators of heritage aircraft and the display circuit generally. This is because maintenance and upkeep of many of these historic aircraft rely heavily on revenue received for appearances at air shows, an activity currently unavailable to some owners and operators as a result of these restrictions. As a consequence, these aircraft are no longer viable in terms of their upkeep and eventually become permanently grounded.

For the future of this activity it is important that the current restrictions are relaxed as soon as possible whilst maintaining safety levels.

Instructor supply

107. A number of the flying training organisations were concerned at the lack of flying instructors becoming available. It was claimed, this was in part, due to the fact that to instruct to EASA level, any budding instructor was required to show theoretic knowledge only demonstrable through a Commercial Pilot Licence (CPL) standard qualification. Instructors are key to the success of GA and to high safety standards being achieved and maintained and this downward trend is concerning. If the CPL qualification is becoming a barrier it may be that the CAA should approach EASA with a view to changing the ICAO-based regulations.

Ministry of Defence aerodromes

108. Ministry of Defence (MoD) airfields are considered by the GA community to be a valuable asset and an essential part of any potential strategic network. The GA Champion met the Parliamentary Under Secretary of State at the MoD to discuss the disposal of MoD airfields in order to better understand the MoD's rationale for the announcement for such an important major infrastructure disposal. The key objective of the MoD estates disposal strategy is "managing public money in the most expeditious way", working to sell airfields with planning permission for alternative use, which would maximise value. The Minister has been provided with evidence of the training value of these airfields and the GA Champion is seeking further discussions

109. These airfields can be used with the permission of the station commander by GA up until the time they are sold assuming the runway and supporting infrastructure is in usable condition.

110. The General Aviation Awareness Council (GAAC) publishes a monthly list of airfields currently under threat. The latest list³ (30 September 2018) lists 43 operating airfields threatened with closure and 20 of the sites within this list are MoD properties due for disposal as announced in 2016.

Safeguarding

111. A certain amount of unease has arisen of late with regard to the safeguarding of airfields. This has arisen due to developers recently being granted planning permission to place new industrial units and 600 new homes adjacent to a busy and vibrant GA airfield. The concerns revolve around the approach and departure of aircraft over the new development from runways at the airfield in question and would apply to

³ <http://www.gaac.org.uk/wp-content/uploads/2018/09/AERODROMES-UPDATE-30-SEPT-2018.pdf>

any airfield in a comparable situation, where an engine failure could have catastrophic consequences.

112. The Town and Country Planning (Safeguarded Aerodromes, Technical Sites and Military Explosives Storage Areas) Direction 2002, applies to such situations and was updated in December 2016. It requires that an aerodrome owner / operator (consultee), should be consulted where there are plans to grant permission for the development of land forming the site or in the neighbourhood of the aerodrome. Cranes have the potential to impact on radar and other aids to navigation and can also be a hazard due to their height.
113. Other construction issues that need to be considered are; dust and smoke that could cause issues for aircraft, temporary construction lighting which could dazzle pilots or could cause confusion, storage of materials and perhaps standing water or other waste products that could attract birds. Wind farms on the approaches to runways are also a major concern. This raises the question of whether local planning authorities pay sufficient regard to airfield operators as consultees. Some airfields (originally those built with government funding) are officially safeguarded, with a potential role for the CAA. All other airfields may enter an unofficial safeguarding arrangement with the local planning authority. These arrangements are set out in CAP 738 Safeguarding Aerodromes published by the CAA.
114. Figure 4 below provides additional background from the CAA on EASA Certified Airfields, National licensed and unlicensed airfields in the UK.

Licensed and Unlicensed Airfields in the UK – Source: CAA 2018 and York Aviation 2015
The CAA has a database of all licensed aerodromes.

- Different regulations apply to aerodromes based on their size and the type of flying that takes place there.
 - A certificated aerodrome is one that falls within the scope of Commission Regulation (EU) No 139/2014. Aerodromes fall within the scope of this Regulation if they are open to public use; serve commercial air transport; operate using instrument flight procedures; and have a paved runway of 800 metres or above.
 - An aerodrome outside of the scope of Commission Regulation (EU) No 139/2014 is required to be licensed if it meets the criteria outlined in Part 8 of the Air Navigation Order 2016. Such an aerodrome is required to hold a national licence if it is used for commercial air transport or flying training in aircraft above a specified weight.
 - Most airfields used for recreational GA have a choice of obtaining a CAA certificate or being an unlicensed airfield. (Most types of recreational aviation flying training can take place at an unlicensed airfield).
 - Guidance for unlicensed aerodromes is available in the document CAP 793.
 - If a recreational GA airfield seeks to be licensed then it is normally overseen by the CAA. The licence covers all the physical aspects of the airfield that relate to airside safety, from the standard of the runways, to signs and emergency facilities. It will then have inspections to make sure that the required standards of safety are being maintained
 - However, there are safety issues that apply to all airfields including runway safety and the risk of bird-strikes regardless of their size.
- The numbers of licensed, certificated and unlicensed/uncertificated airfields in the UK are as follows:
 - 80 Licensed (December 2018)
 - 42 Certificated (EASA Aerodromes) (December 2018)
 - 377 Unlicensed/Uncertificated (York Aviation estimate)
 - GA Airfield Data show that the steady decline in the number of licensed airfields since 2016, mostly moving to certificated status, has started to level out

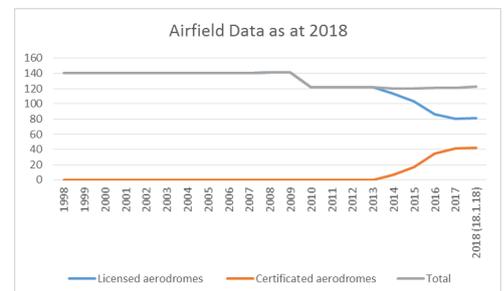


Figure 4

115. Given the pressure now to build on land adjacent to airfields and to make airfields themselves available for development, safeguarding has the potential to be a significant constraining factor for airfield owners to resist the development of land in the vicinity of their runways. The facility to apply to local planning authorities for unofficial safeguarding is open to all airfield operators but not always taken up. This raises the question of whether the government should increase the number of airfields subject to official safeguarding, to perhaps include all licensed airfields. Many in the GA community consider this to be a sensible step forward, requiring the CAA who regulate licensed airfields and the local planning authority to act if a development compromises safe operation at a licensed airfield.

Taxation

116. Taxation issues in relation to matters associated with training continue to be a focus for GA, particularly as cheaper alternative training is available elsewhere in Europe and the USA. Comparisons are often made with other European countries where the approach to taxation – particularly VAT on training - is claimed to be less onerous. The argument that pilot training is a route to employment and should be free from VAT is a solid one. Furthermore, there is the well exercised argument that tax on aviation fuel (Avgas and Avtur), becomes part of general taxation and is never reinvested into GA, in contrast to road tax and its return through highway maintenance.

Conclusions, recommendations and next steps

Conclusions

117. It is well established that GA makes a valuable contribution to the UK aviation sector, both in terms of economics and skills. We have however, reached a crossroads in respect of the future of our operating UK airfields, numbers of which are now declining with more under threat.

118. Given the unplanned approach to airfield development, mostly privately owned and therefore at the whim of their owners to dispose of as they wish, we have arrived at a point where government involvement is necessary in respect of planning measures. Given that support, it would potentially allow qualifying airfields - based on the predetermined process, to be admitted to a network of strategic airfields that benefit from greater protection planning terms and become regarded as a UK asset.

119. This is an opportunity for government to demonstrate a commitment to GA and secure the future of our airfields, which otherwise may be swallowed up by developers insensitive to their wider role. Looking ahead, in order to protect a network and satisfy the real and urgent requirement for housing, serious consideration should be given to mixed use airfields, where GA, industry and housing can live together harmoniously. A development of this nature would also prepare the

ground for the innovative vision of air taxis and vertical take-off and landing (eVTOL) aircraft, providing on-demand transportation to minimise long commutes.

120. GPS directed autonomous drones have already been tested on a small scale for the delivery of goods so the prospect of cargo delivery hubs based on eVTOL transport in the future should not come as a surprise. Such a prospect must be catered for through innovative planning, reinforced by the need to retain a protected network of civilian and former military airfields.
121. Whilst the NPPF has advanced the GA cause by recognising the importance of meeting the Government's Aviation Strategy and maintaining a national network of GA airfields, the Government should support this by preparing planning practice guidance, setting out how local authorities can address opportunities arising from future high-tech transport developments, whilst also addressing impending housing requirements.

Recommendations

122. The research undertaken by York Aviation has provided valuable insight into the economic value of general aviation airfields in the UK and importantly, a structured methodology for evaluating the contribution of individual airfields to a strategic network. However, York Aviation make clear in their report that applying that methodology is currently constrained by the limited data available about the characteristics of each individual airfield (and that that data will inevitably change over time).
123. Recommendation 1 – I therefore recommend that the government considers (i) publishing criteria that would enable an airfield to identify itself as being part of the strategic network and local authorities would have to take this into consideration when planning applications are made or (ii) producing a list of airfields that comprise the network, based on the criteria identified in this report. The list could be periodically updated. If DfT consults on this proposal, then that consultation should include any process for appeals.
124. Recommendation 2 – That the Ministry of Housing, Communities and Local Government (MHCLG) together with DfT jointly prepare new planning guidance which gives further detail on how the policy to 'recognise the importance of maintaining a national network of GA airfields' applies in practice, making clearer that those airfields which meet the criteria for the strategic network of benefit from enhanced protection; and also that their planning policies have regard to airfields that fall outside of the strategic network.
125. Recommendation 3 – That the Department for Transport consider whether official or unofficial safeguarding should be made obligatory by Statutory Direction.

126. Recommendation 4 - That the Ministry of Housing, Communities and Local Government (MHCLG), with the Department for Transport, considers amending planning practice guidance to ensure the effective and proportionate assessment of potential risks in the event of an aviation accident, in cases where development is proposed in the immediate vicinity of the final approaches and departures climb out from operational runways of licensed airfields.
127. Recommendation 5 – That the Department for Transport considers publishing case studies in or alongside the Aviation Strategy setting out good practice in the GA sector, including those based on material collected by the GA Champion such as Perth and Harlow Colleges, and Blackbushe, Biggin Hill. Elstree and Gloucestershire airfields.

Next steps

128. Collaboration with the various Government Departments, such as MHCLG and MOD should continue, with DfT working with the GA community to take this forward
129. Implementation of the recommendations arising from this report would generate improved confidence levels within the GA community that the Government seriously views the GA sector as important to the UK economy.
130. The Government and the sector may wish to consider whether business aviation should be treated as a separate category to GA for engagement and policy development purposes.
131. I look to the Government to continue to engage with the GA community as a whole and to build on the research and work completed by York Aviation and the GA Champion over the last 12 months.

Annexes

Annex 1 - Organisations approached

The following is a list of many of the sector stakeholders who the GA Champion reached out to:

All-Party Parliamentary Group on General Aviation
Aircraft Owners & Pilots Association
Biggin Hill Aerodrome
Blackbushe Airfield
British Business & General Aviation Association
British Gliding Association
British Helicopter Association
British Microlight Aircraft Association
British Parachute Association
British Rotorcraft Association
British Women Pilots Association
Cambridge Aero Club
Civil Aviation Authority General Aviation Unit
Department for Transport
Elstree Aerodrome
Fairoaks 2020
General Aviation Alliance
General Aviation Awareness Council
General Aviation Safety Council
Historic Aircraft Association
Light Aircraft Association
Ministry of Housing, Communities & Local Government
Royal Aeronautical Society
Vintage Aircraft Club

Annex 2 – List of engagement events

The table lists many of the visits and meetings held in 2018 by the GA Champion that were primarily focused on that role.

Date	Persons or bodies met	Notes
9 Jan	GA APPG Airfield Working Group	Inaugural meeting of the group
17 Jan	Roger Hopkinson Meet with GA APPG Airspace Working Group	Discussion re. work of the GBSAF Inaugural meeting of the group
24 Jan	Chair GA APPG	Briefing re. role of GA Champion and partnership working
29 Jan	Airlines for America	Discuss issues concerning GA and Brexit effect
30 Jan	Aviation Minister Dan Micklethwaite, Director of Aviation DfT	Catch-up briefings
1 Feb	Tony Rapson Head of General Aviation, CAA	Briefing re. role of GA Champion and partnership working
1 Feb	Initial Project Programme Meeting with York Aviation	Briefing and discussions re. research work being undertaken.
7 Feb	Launch of GA Champion Event	Launch event at Elstree Aerodrome, Herts
19 Feb	GA Progress Meeting with DfT officials	Briefing and update
10 March	BBC Surrey Radio Interview	Role of GA Champion and participation in Brooklands Conference
10 March	Brooklands Conference	Speaking slot
15 March	Secretary of State John Gilder GAAC and Chair of APPG Airfields Working Group Lord David Trefgarne	Update meeting with SoS Briefing and partnership working meeting Briefing meeting

16 March	Martin Robinson AOPA	AOPA briefing and working partnership meeting
10 April	2 nd Progress Meeting with York Aviation Project Team	Briefing and discussions on research work being undertaken.
11 April	GA Strategic Airfield Network Workshop	Consultation with invited representatives of GA community
12 April	Mike Murray of Causeway Land Investments LLP	Discussion of work being done by CLI LLP at Redhill Airport.
19 April	GA Strategic Airfield Network Workshop	Consultation with invited representatives of GA community
1 May	Grant Shapps MP, Chair of APPG	Regular briefing and update of APPG work
4 May	Visit to Blackbushe Airfield Management team	To see operation at Blackbushe Airport and challenges to expansion
4 May	Visit to Fairoaks Airfield, Fairoaks 2020	Briefing by team wishing to develop airfield for GA purposes
15 May	Third Progress Meeting with York Aviation Project Team	Briefing and discussions of research work being undertaken.
21 May	Aviation Minister	Catch-up briefings
21 May	DfT Official	Catch-up briefings
6 June	Air League Annual Reception	Attend reception and networking
7 June	Ministry of Defence – Graham Dalton CEO DIO	Briefing and discussions of disposal of MoD sites
7 June	DfT Official on programme progress	Catch-up briefings
7 June	Progress Meeting with York Aviation Project Team	Briefing and discussions of research work being undertaken.
14-16 June	Attendance at AeroExpo, Wycombe Air Park	Presentation of York Aviation work programme on 15 June
15 June	APPG at AeroExpo	Various meetings with GA representative groups
27 June	Tobias Ellwood MP, (Min DPV)	Briefing and discussions of disposal of MoD sites
27 June	DfT Official	Catch-up briefings

3 July	Air League Pre Farnborough-Debate	Attend lecture and networking
9 July	Aviation Minister on Progress	Catch-up briefings
11 July	DfT official	Catch-up briefings
11 July	Mike Murray, Redhill Aerodrome	Discussion of work being done by CLI LLP at Redhill Airport.
16 July	Attended TAG Farnborough Airshow	Visit to GA stands and discussions and networking
16 July	Visit to Fairoaks Airfield, Management Team	Briefing by team wishing to develop airfield for housing
17 July	Report Delivery Meeting with York Aviation Project Team	Briefing and discussions re. research work being undertaken.
17 July	Attended the APPG Summer Reception	Speech and networking
18 July	BBGA Reception	Speech and networking
23 July	Aviation Minister	Regular catch-up briefings
31 July	GASCo Safety Council Meeting	Briefing on work of GA Champion and networking
18 August	Meeting at Biggin Hill Aerodrome with Aviation Minister	Meeting with airfield operators and businesses attached to airfield
31 August	LAA International, Sywell Aerodrome	Speaking slot and meetings with GA representative groups
12 Sep	Scott Pendre – Aerospace Technology Institute	Briefing on work of ATI
21 September	Richard Moriarty, CEO CAA	Intro to new CAA CEO and briefing on work of GA Champion
25 September	Mr Anoop Bamrah, Biggin Hill Aerodrome	Briefing and discussion re. challenges to operating a GA flight training organisation
1 October	Grant Shapps MP, Chairman of APPG	Regular catch-up briefings on work of APPG
5 October	Meeting with DfT official	Regular catch-up briefings

9 October	Welsh Government	Meeting to establish and learn of work being undertaken in aviation within Welsh Government
10 October	Vas Gopinathan – CAA Aviation Minister	Discussion of ongoing thefts of Rotax aero engines
22 October	Kit Malthouse MP, MHLG	Briefing and discussion of NPPF and future planning policy
25 October	Attend Airspace Modernisation Board	Governance Board discussion of future airspace
31 October	GA Roundtable Engagement Meeting	Ministerial briefing and aviation community discussion re. challenges to GA
13 November	GA Partnership Meeting	Regular GA representative meeting to update on current issues
14 November	Aviation minister	Regular catch-up briefings
15 November	GBSAF Meeting	Update GA Forum meeting on current issues

Annex 3 - Criteria for evaluation of network contribution

Quantitative criteria

Airfield

- Facilities – navigational aids (NavAids)
 - Instrument landing system (ILS/DME)
 - Radar
 - Other landing aids – NDB
- Limitations in terms of local noise abatement procedures
- Whether licensed for CAA purposes – level of fire cover available
- Whether handling operators available and/or compulsory
- Airframe de-icing facilities
- Type of traffic permitted – IFR/VFR
- Suitable pre-flight briefing facilities e.g. MET/Aeronautical Information Service
- Support services for specific aircraft type operations - ground generators
- Provision of helipad and associated support services

Runway

- Hard surface –asphalt/concrete or soft/grass/gravel surface
- Runway length and landing weight capability
- Airfield lighting for night-time operation
- Suitable taxiways with adequate propeller ground clearance

Air Traffic Control

- Ground only service
- Air Traffic Information Service

Fuel – where available by type

- AVTUR Jet A1 (jet/turbine engines)
- AVGAS 100LL (spark ignited piston engine fuel)
- MOGAS (ordinary car fuel used in some light aircraft engines)

Parking / hangar facilities

- Overnight secure parking
- Availability of hangar space for visiting aircraft / home based aircraft

Maintenance facilities

- Suitably qualified/equipped and licensed workshops
- Suitably licensed engineers

Operational hours

- 24hrs – 7day a week or daylight hours only. Out of hour operation permitted.
- Availability of HMRC – prior notice required
- Designated airport or Certificate of Agreement with Border Force

Qualitative criteria

- Viability
- Hangarage
- Specialised Engineering e.g. nav/comm radio repair workshop
- Heritage Value
- Use by emergency service operations, air ambulance/police and utility companies for aerial inspection work
- Community Engagement and Education including youth such as schools visits, cadet or scout units and aviation and history clubs as well as enabling social/learning facilities for community groups / elderly / disabled and providing accommodation in unused available rooms for voluntary groups and Open days with flying/static displays / Flying competition days / Fly-in days and established viewing areas for aircraft spotters as well as opportunities to establish aeronautical engineering teaching establishments / technical colleges and engineering apprenticeships / STEMS opportunities
- Environmental Factors such as natural habitat conservation, establishing consultative groups on various aspects of aviation and agricultural opportunities – cultivation of outlying airfield land / hay making
- Surface Access
- Other non-aviation activity such as small business (non-aviation related) development, subject to planning

Credits

Figure 1 Civil Aviation Authority

Figure 2 – York Aviation Report 2018 and the European Business Aviation Association

Figure 3 – Air Ambulance Association, York Aviation, National Police Air Service, Maritime and Coastguard Agency and Bristows

Figure 4 – Civil Aviation Authority and York Aviation Report 2015